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- location counter, control counter, program counter, program register, instruction register, and instruction counter.**
- locator beacon** 1. In navigation, a beacon providing the guiding or orienting signal for homing. Also called **homing beacon**. 2. A device which sends a radio-frequency beacon signal in case of an emergency. Such a device is usually portable and battery-operated, and may function for up to several days to allow others to home-in after being alerted. Also called **emergency locator beacon**.
- lock** 1. To secure, hold, stabilize, or set. 2. To deny access, prevent operation, or preclude any changes or deletion. Also, a setting, device, or feature which puts such restrictions into effect, or which helps implement them.
- lock code** A code which prevents the use of a device, such as a cellular phone. Such a code may also be utilized to restrict functions, such as the ability to place certain calls, or to re-program selected features.
- lock-in** A state in which two oscillating systems are synchronized at the same frequency. Also, the process by which this synchronicity is achieved. For example, the shifts of one or both systems, followed by their being locked in place.
- lock-in amplifier** A circuit or device utilized to detect and amplify weak input signals whose frequency is matched by an internally-generated frequency, such as that of an internal oscillator. Used, for instance, when signal-to-noise ratios are extremely low. Also called **lock-in detector**.
- lock-in detector** Same as **lock-in amplifier**.
- lock-in range** Also called **lock range**. 1. The frequency range within which a closed-loop feedback system can lock onto a signal. 2. The frequency range within which an oscillator can be synchronized by an external signal.
- lock-nut** Same as **locknut**.
- lock-on** 1. In radars, the instant the tracking of a scanned object begins. Also, to seek this state. 2. The instant at which a previously varying frequency is fixed. For instance, that required for controlled oscillation. Also, to seek this frequency. 3. The instant at which a previously varying quantity or magnitude is fixed. Also, to seek this state.
- lock-out** Same as **lockout**.
- lock-out circuit** Same as **lockout circuit**.
- lock range** Same as **lock-in range**.
- lock-up** Same as **lockup**.
- lock-up relay** A latching relay which electrically or magnetically maintains its actuated position after the triggering current is removed. Also spelled **lockup relay**.
- locked oscillator** An oscillator whose frequency is synchronized with that of an external signal. Used, for instance, as a frequency divider.
- locking circuit** A circuit which maintains enough current in a holding coil to keep a relay in its actuated position after the triggering current is removed. Also called **holding circuit**.
- locking relay** Same as **latching relay**.
- locknut** Also spelled **lock-nut**. 1. A nut which is utilized to help secure something else, especially another nut. 2. A nut which is self-locking.
- lockout** Also spelled **lock-out**. 1. The prevention of access, or the use of a given function or resource, to one or more circuits, devices, or processes. Used especially in the context of one circuit, device, or process excluding all others to prevent conflicts or other unwanted conditions. 2. In a telephone system, the prevention of one or more senders or receivers from communicating. This may occur, for instance, as a result of excessive line noise, or to prevent interference. 3. In a telephone system, the disconnection of a line which is not functioning properly. 4. In computers, the allowing of only one device or process to have access to a given resource. For example, the prohibiting of reading data which is being updated at that moment. 5. The preventing of a user or entity to gain access to a computer system or network. A lockout may occur, for instance, when an incorrect password is entered more than the allowable number of times.
- lockout circuit** A circuit which performs **lockout** functions. Also spelled **lock-out circuit**.
- lockup** A state which a device, piece of equipment, or system does not respond to user input. A hanging computer is an example. Also spelled **lock-up**.
- lockup relay** Same as **lock-up relay**.
- loctal base** Same as **loktal base**.
- loctal socket** Same as **loktal socket**.
- loctal tube** Same as **loktal tube**.
- lodestone** A variety of the mineral **magnetite** which exhibits polarity and is a natural magnet. Magnetite and lodestone are often used synonymously. Also spelled **loadstone**.
- LOFAR** Abbreviation of **Low-Frequency Acquisition and Ranging**. A submarine detection and ranging system.
- log** 1. Abbreviation of **logarithm**. 2. A record kept of the activity or performance of a device, piece of equipment, or system. Also, to record such activity or performance. 3. A record of computer and/or network activity. Used, for example, to find the origin of problems, monitor usage, recover data, or to identify unauthorized access. Also called **electronic log, electronic journal, or journal**.
- log-in** Same as **log-on**. Also spelled **login**.
- log-off** Same as **log-out**. Also spelled **logoff**.
- log-on** To initiate a session. Also, the process of initiating a session. This may require, for instance, entering a username and the corresponding password. Also spelled **logon**. Also called **log-in, or sign-on**.
- log-out** To end a session. Also, the process of terminating a session. One or more commands may be required for proper termination. Also spelled **logout**. Also called **log-off, or sign-out**.
- log-periodic antenna** A unidirectional broadband antenna in which the length and spacing of the elements increase logarithmically from one end to the other. The input impedance of such an antenna is essentially constant over a wide range of frequencies. When a log-periodic antenna consists of a series of dipoles arranged along a transmission line, it is also called **log-periodic dipole array**.
- log-periodic dipole array** A **log-periodic antenna** consisting of a series of dipoles arranged along a transmission line.
- log taper** Abbreviation of **logarithmic taper**. A taper, such as that of a potentiometer, in which the difference in resistance for a given rotation through a given angle varies logarithmically along the entire range of the shaft. An example is that of a volume control. It is a type of nonlinear taper, and contrasts with a linear taper.
- logamp** Abbreviation of **logarithmic amplifier**.
- logarithm** The power to which a base, such as  $e$  or  $10$ , must be raised, to produce a given number. For example,  $\log_e y = n$ , where  $e$  is the base,  $y$  is the power, and  $n$  is the resulting number. A logarithm has two portions, the characteristic, which is an integer, and the mantissa, which is a decimal. Its abbreviation is **log**.
- logarithmic amplifier** An amplifier whose output signal magnitude is a logarithmic function of its input signal magnitude. Used, for instance, for signal compression. Its abbreviation is **logamp**.
- logarithmic decrement** For an underdamped vibrational system, the natural logarithm of the ratio of the amplitude of a given vibration to that of the next vibration. For example, that of the ratio of the amplitude of a damped oscillation to the succeeding one. Also called **damping factor** (2), or **decrement** (3).